# Creating PyTorch Solutions on the Google Cloud Platform



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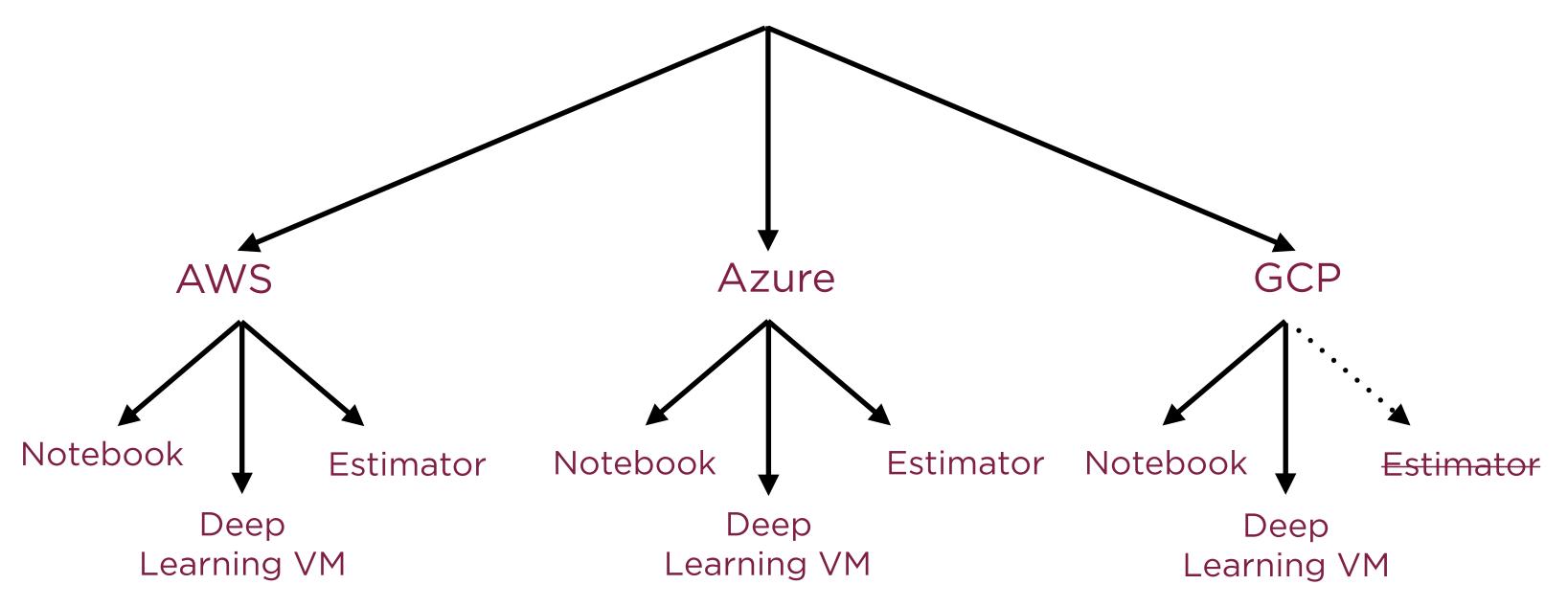
### Overview

Google Cloud Datalab for PyTorch prototyping

Google Deep Learning VM instances for PyTorch

### PyTorch on the GCP

### PyTorch on the Cloud



# PyTorch on the Cloud **GCP** Notebook **Estimator** Deep Learning VM Cloud Datalab JupyterLab on GCP Deep Learning VM



## Google Cloud Datalab

Jupyter notebooks hosted on Compute Engine VM instances. Datalab is packaged as a Docker container.

### Cloud Datalab for Data Preparation



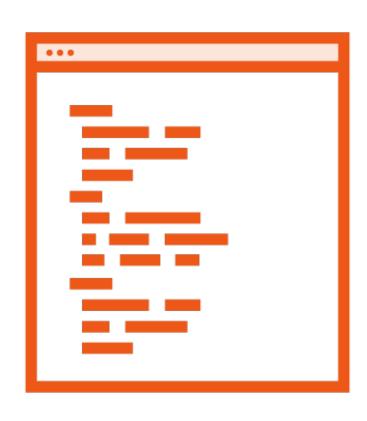
Standard way to run Python on GCP

**Authentication built-in** 

Jupyter notebooks

Python, SQL and Javascript (for BigQuery UDFs)

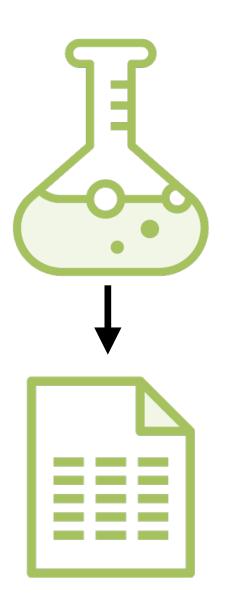
### Interactive Notebooks



# Uses notebooks, not text files Notebooks combine

- Code
- Markdown
- Results of code execution

### Connected to a Git Repository



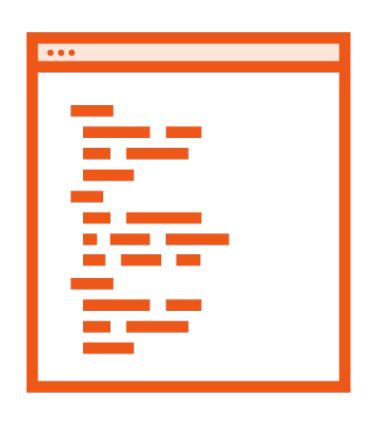
Code integrated with Cloud Source Repositories

Code auto-saved to local persistent disk

Explicitly commit and push local changes using git

Git runs on the persistent disk associated with the Datalab instance

### Datalab VM



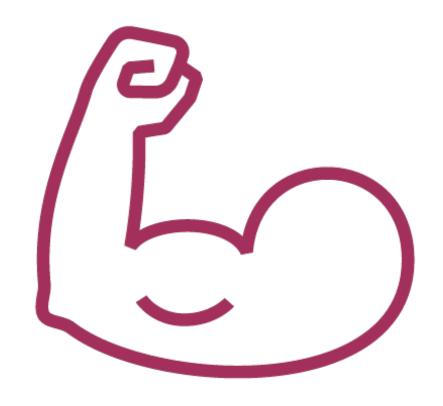
Datalab packaged as container running on VM

VM is accessible to all users in project

Just like any other VM

Special care for persistent disk of this VM

### Deep Learning VM



Powerful Google Compute Engine VM instance

Pre-installed with TensorFlow, PyTorch, scikit-learn

Integrated with JupyterLab, web-based interface for Jupyter notebooks

### Demo

Prototyping PyTorch models on Cloud Datalab

### Demo

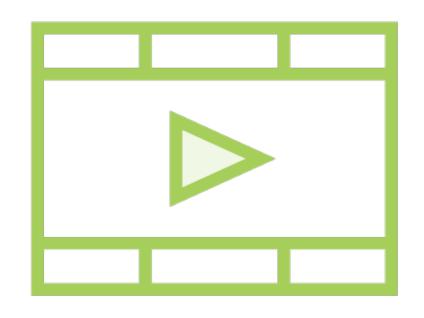
Build PyTorch models on JupyterLab on GCP Deep Learning VM

### Summary

Google Cloud Datalab for PyTorch prototyping

Google Deep Learning VM instances for PyTorch

#### Related Courses



Deep Learning Using TensorFlow and Apache MXNet on AWS SageMaker

Creating and Deploying Microsoft Azure Machine Learning Studio Solutions

Architecting Production-ready ML Models Using Google Cloud ML Engine